

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 2

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the present application:

- 1 (canceled).
- 2 (currently amended): The conveyors as claimed in claim ~~1~~ 7, characterized in that the load-bearing belts comprise toothed belts, of which the teeth arranged on the underside, for the purpose of transmitting the driving torque, engage in the correspondingly designed teeth of at least one driving gearwheel.
- 3 (currently amended): The conveyor as claimed in claim ~~1~~ 7, characterized in that the load-bearing members are formed from a rolled steel profile or angled sheet metal.
- 4 (currently amended): The conveyor as claimed in claim ~~1~~ 7, characterized in that the load-bearing members are formed from an extruded aluminum profile.
- 5 (currently amended): The conveyor as claimed in claim ~~4~~ 16, characterized in that each load-bearing member comprises a load-bearing profile and a bar, which is positioned in an exchangeable manner on the load-bearing profile and in which the load-bearing rollers for the load-bearing belt are mounted.
- 6 (original): The conveyor as claimed in claim 5, characterized in that the load-bearing profile is open at least on one of its longitudinal sides.
- 7 (currently amended): A conveyor as claimed in claim 6 for transporting load carriers, in particular standardized pallets, skids or containers, said conveyor comprising:  
\_\_\_\_\_ frame parts which stand on the floor and on which are arranged load-bearing members which are spaced apart parallel to one another and are intended for accommodating drivable

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 3

load-bearing elements which form longitudinally running load-bearing tracks for the load carriers on the load-bearing elements; and  
modular-construction conveying units, said conveying units being at least one of mechanically connected and electrically connected so that said conveying units are joined as a functional conveyor assembly, each load-bearing element of at least two laterally spaced-apart load-bearing members of each conveyor unit comprising an endlessly circulating load-bearing belt, said load bearing belt bearing the load carriers and being supported on a plurality of spaced apart load-bearing rollers, which are mounted on the load-bearing members, with a gap between respective adjacent pairs of said rollers, and which circulate in the conveying direction, said gap between said rollers being less than the dimension of a diameter of one of said rollers, each load-bearing member comprising a load-bearing profile and a bar, which is positioned in an exchangeable manner on the load-bearing profile and in which the load-bearing rollers for the load-bearing belt are mounted, the load-bearing profile being open at least on one of its longitudinal sides, characterized in that the load-bearing profile of each load-bearing member is cross-sectionally C-shaped and the bar, which can be positioned on the load-bearing profile, is cross-sectionally U-shaped, the load-bearing rollers for the load-bearing belt being mounted in the legs of the U-shaped profile of the bar.

8 (currently amended): A The conveyor as claimed in claim 6 for transporting load carriers, in particular standardized pallets, skids or containers, said conveyor comprising:

frame parts which stand on the floor and on which are arranged load-bearing members which are spaced apart parallel to one another and are intended for accommodating drivable load-bearing elements which form longitudinally running load-bearing tracks for the load carriers on the load-bearing elements; and

modular-construction conveying units, said conveying units being at least one of mechanically connected and electrically connected so that said conveying units are joined as a functional conveyor assembly, each load-bearing element of at least two laterally spaced-apart load-bearing members of each conveyor unit comprising an endlessly circulating load-bearing belt, said load bearing belt bearing the load carriers and being supported on a plurality of spaced apart load-bearing rollers, which are mounted on the load-bearing members, with a

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 4

gap between respective adjacent pairs of said rollers, and which circulate in the conveying direction, said gap between said rollers being less than the dimension of a diameter of one of said rollers, each load-bearing member comprising a load-bearing profile and a bar, which is positioned in an exchangeable manner on the load-bearing profile and in which the load-bearing rollers for the load-bearing belt are mounted, the load-bearing profile being open at least on one of its longitudinal sides, characterized in that the load-bearing profile of each load-bearing member is cross-sectionally C-shaped, and fastened on the load-bearing profile are two vertical metal plates which are spaced apart parallel to one another in the longitudinal direction and between which the load-bearing rollers for the load-bearing belts are mounted.

9 (previously presented): The conveyor as claimed in claim 8, characterized in that at least one of the C-shaped load-bearing profiles of the load-bearing members is installed on the frame parts with the opening in the outward direction and the cavity within the C-shaped load-bearing profile, said cavity being closed by a covering plate, said at least one C-shaped load-bearing profile of the load-bearing members being configured as a cable duct and/or for accommodating electrical or electronic components.

10 (previously presented): The conveyor as claimed in claim 7, characterized in that the U-shaped bar is positioned on the load-bearing profile, and screwed to the latter, with the opening in the downward direction, and the load-bearing rollers have their running surfaces for the load-bearing belt projecting upward through cutouts provided in the bar.

11 (previously presented): The conveyor as claimed in claim 7, characterized in that the load-bearing profile of each load-bearing member is provided with T-grooves which run in the longitudinal direction and are provided for fastening at least one of frame parts, drive parts, initiators, control means and the U-shaped bar to said load-bearing member.

12 (previously presented): The conveyor as claimed in claim 11, characterized in that in each case at least two load-bearing members are joined together with the frame parts and supporting feet to form one of a number of autonomous conveyor units of the same

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 5

construction, in which are integrated in each case at least one drive and control elements for the load-bearing elements of this one conveyor unit, said at least one drive and control elements of said one conveyor unit being linked for control purposes to further drives and control means of other conveyor units.

13 (currently amended): The conveyor as claimed in claim-~~4~~ 7, characterized in that in each case at least two load-bearing members are joined together with the frame parts and supporting feet to form one of a number of autonomous conveyor units of the same construction, in which are integrated in each case at least one drive and control elements for the load-bearing elements of this one conveyor unit, said at least one drive and control elements of said one conveyor unit being linked for control purposes to further drives and control means of other conveyor units.

14 (currently amended): The conveyor as claimed in claim 13, characterized in that the accelerating and braking processes of said conveyor units between preceding and following conveyor units are synchronized.

15 (currently amended): The conveyor as claimed in claim-~~4~~ 7, characterized in that, in order to form three load-bearing tracks, each conveyor unit contains three loading-bearing members with load-bearing elements, of which at least the two outer load-bearing elements have load-bearing belts supported on load-bearing rollers.

16 (currently amended): ~~A~~ The conveyor as claimed in claim 15 for transporting load carriers, in particular standardized pallets, skids or containers, said conveyor comprising:  
\_\_\_\_\_ frame parts which stand on the floor and on which are arranged load-bearing members which are spaced apart parallel to one another and are intended for accommodating drivable load-bearing elements which form longitudinally running load-bearing tracks for the load carriers on the load-bearing elements; and  
\_\_\_\_\_ modular-construction conveying units, said conveying units being at least one of mechanically connected and electrically connected so that said conveying units are joined as a

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 6

functional conveyor assembly, each load-bearing element of at least two laterally spaced-apart load-bearing members of each conveyor unit comprising an endlessly circulating load-bearing belt, said load bearing belt bearing the load carriers and being supported on a plurality of spaced apart load-bearing rollers, which are mounted on the load-bearing members, with a gap between respective adjacent pairs of said rollers, and which circulate in the conveying direction, said gap between said rollers being less than the dimension of a diameter of one of said rollers, in order to form three load-bearing tracks, each conveyor unit contains three loading-bearing members with load-bearing elements, of which at least the two outer load-bearing elements have load-bearing belts supported on load-bearing rollers, characterized in that, of three load-bearing tracks, only the load-bearing elements of the central load-bearing track are driven.

17 (previously presented): The conveyor as claimed in claim 13, characterized in that each autonomous conveyor unit is larger, in respect of its length and width measurements, than the dimensions of an individual load carrier which is to be transported.

18 (currently amended): ~~A The conveyor as claimed in claim 1~~ for transporting load carriers, in particular standardized pallets, skids or containers, said conveyor comprising:

\_\_\_\_\_ frame parts which stand on the floor and on which are arranged load-bearing members which are spaced apart parallel to one another and are intended for accommodating drivable load-bearing elements which form longitudinally running load-bearing tracks for the load carriers on the load-bearing elements; and

\_\_\_\_\_ modular-construction conveying units, said conveying units being at least one of mechanically connected and electrically connected so that said conveying units are joined as a functional conveyor assembly, each load-bearing element of at least two laterally spaced-apart load-bearing members of each conveyor unit comprising an endlessly circulating load-bearing belt, said load bearing belt bearing the load carriers and being supported on a plurality of spaced apart load-bearing rollers, which are mounted on the load-bearing members, with a gap between respective adjacent pairs of said rollers, and which circulate in the conveying direction, said gap between said rollers being less than the dimension of a diameter of one of

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 7

said rollers, characterized in that the drive for a load-bearing element comprises a prefabricated drive station which is screwed onto the load-bearing profile in the end region and has an integrated motor, gear mechanism and drive chain or belt and a driving gearwheel, which is mounted in a floating manner, about which the load-bearing belt is deflected, and the top of which is arranged in the load-bearing plane of the load-bearing rollers.

19 (original): The conveyor as claimed in claim 18, characterized in that the motor and the gear mechanism are flanged directly onto the driving gearwheel, which is mounted in a floating manner.

20 (previously presented): The conveyor as claimed in claim 18, characterized in that the driving wheel is larger than the load-bearing rollers, and a smaller-diameter guard roller is arranged between the driving gearwheel and at least one of the directly adjacent load-bearing roller and the driving or deflecting wheel of the adjacent conveyor unit.

21 (original): The conveyor as claimed in claim 20, characterized in that each load-bearing member is made up of a load-bearing profile and a bar, which is positioned in an exchangeable manner on the load-bearing profile and in which the load-bearing rollers for the load-bearing belt are mounted, wherein the load-bearing belt can be tensioned by displacement of the bar relative to the driving gearwheel.

22 (original): The conveyor as claimed in claim 20, characterized in that the load-bearing belt is tensioned by a tensioning roller provided in the bottom strand.

23 (currently amended): The conveyor as claimed in claim ~~1~~ 7, characterized in that each load-bearing element is assigned a dedicated drive station with motor, and the motors of all the drive stations of a conveyor unit are synchronized with one another via an electronic shaft.

24 (currently amended): The conveyor as claimed in claim ~~1~~ 7, characterized in that at least two load-bearing elements of a conveyor unit are each assigned a dedicated drive station with

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 8

motor, and the drive stations are activated differently in order to achieve a differential speed for the load-bearing elements.

25 (currently amended): The conveyor as claimed in claim ~~1~~ 7, characterized in that at least two load-bearing elements of a conveyor unit are driven via a common motor, and the driving wheels of the load-bearing elements are connected to one another via a mechanical shaft.

26 (currently amended): The conveyor as claimed in claim ~~1~~ 7, characterized in that the load-bearing belt comprises a toothed belt, said load-bearing belt having on its underside, alongside regions which are toothed in order to drive the load-bearing belt, smooth regions which rest on the load-bearing rollers in order to bear the load resting on the load-bearing belt.

27 (previously presented): The conveyor as claimed in claim 26, characterized in that the toothed region is provided with a toothing formation having a plurality of generally straight teeth extending laterally across said belt.

28 (previously presented): The conveyor as claimed in claim 26, characterized in that the toothed region is provided with a toothing formation in which the tooth widths are larger than the tooth gaps.

29 (canceled).

30 (currently amended): The conveyor as claimed in claim ~~1~~ 7, characterized in that the load-bearing belt is provided with reinforcements which increase the tensile strength.

31 (original): The conveyor as claimed in claim 30, characterized in that the reinforcements consist of embedded steel wire, Kevlar material or woven fabric made of such materials or other tension-resistant materials.

Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 9

32 (previously presented): The conveyor as claimed in claim 30, characterized in that the load-bearing belt is provided with a traction-increasing top side.

33 (previously presented): The conveyor as claimed in claim 32, characterized in that the top side of the load-bearing belt is provided with a profile in the manner of a vehicle tire having a plurality of ribs that extend at different angles across said belt.

34 (previously presented): The conveyor as claimed in claim 33, characterized in that the profile is configured such that the traction is higher in the longitudinal direction and lower in the transverse direction.

35 (original): The conveyor as claimed in claim 33, characterized in that the profile is designed to be arrow-shaped, half-moon-shaped or interrupted or rectilinear throughout.

36 (currently amended): The conveyor as claimed in claim ~~4~~ 7, characterized in that at least one of the load-bearing rollers and the driving gearwheels are designed with flanged wheels for guiding at least one of the load-bearing belt and the load carrier.

37 (canceled).

38 (currently amended): The conveyor as claimed in claim ~~4~~ 7, characterized in that the modular-constructed conveying units, completely preassembled and subjected to final testing, are assembled together to form the conveyor at the use location.

39 (currently amended): The conveyor as claimed in claim ~~4~~ 16, characterized in that each load-bearing member comprises a load-bearing profile and a bar, which is positioned in an exchangeable manner on the load-bearing profile and in which the load-bearing rollers for the load-bearing belt are mounted, wherein the bars, in which the load-bearing rollers for the load-bearing belt are mounted, and the load-bearing profiles are adjustable to vary the length of the conveying units.



Applicants : Edgar Bonifer et al.  
Serial No. : 10/827,175  
Page : 10

40 (currently amended): The conveyor as claimed in claim ~~4~~ 7, characterized in that the load-bearing members of the conveyor units are connected to one another at their mutually facing ends via metal plates with fastening bores provided at unit spacings.

41 (currently amended): The conveyor as claimed in claim ~~4~~ 16, characterized in that each load-bearing member comprises a load-bearing profile and a bar.

42 (original): The conveyor as claimed in claim 41, characterized in that the load-bearing profile is open at least on one of its longitudinal sides.

43 (previously presented): The conveyor as claimed in claim 42, characterized in that the load-bearing profile of each load-bearing member is cross-sectionally C-shaped and the bar, which can be positioned on the load-bearing profile, is cross-sectionally U-shaped, the load-bearing rollers for the load-bearing belt being mounted in the legs of the U-shaped profile of the bar.

44 (previously presented): The conveyor as claimed in claim 43, characterized in that the bar is positioned in an exchangeable manner on the load-bearing profile and in which the load-bearing rollers for the load-bearing belt are mounted, wherein the metal plates are cut out at the C-shaped openings of the load-bearing members.